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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MAXIME TEISSIER
and CYRIL TROISE

Appeal 2015-005911
Application 13/197,619
Technology Center 2800

Before JAMES C. HOUSEL, GEORGE C. BEST, and LILAN REN, *Administrative Patent Judges*.

BEST, Administrative Patent Judge.

DECISION ON APPEAL

The Examiner finally rejected claims 1–21 of Application 13/197,619 under 35 U.S.C. § 103(a) as obvious. Final Act. (July 1, 2014). Appellants[1] seek reversal of these rejections pursuant to 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6.

For the reasons set forth below, we REVERSE.

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[1] STMicroeletronics (Rousset) SAS is identified as the real party in interest. Appeal Br. 2.

BACKGROUND

The '619 Application describes methods and apparatus for detecting an object by means of a capacitive-type proximity sensor. Spec. 1. In particular, Appellants describe methods for detecting the proximity of an object in the face of changes in the proximity sensor's environment during the detection period. *Id.* at 2.

Claim 1 is representative of the '619 Application's claims and is reproduced below with limitations that are significant in our analysis italicized:

> 1. A method, comprising:
>
> detecting an object using a detection signal supplied by a proximity sensor, the detection signal having a value that changes as a function of the proximity of the object to the proximity sensor, the detecting including:
>
> generating a reference signal by filtering the detection signal;
>
> *defining a first detection threshold relative to the reference signal*;
>
> going from an object non-detecting state to an object detecting state in response to detecting the detection signal crossing the first detection threshold in a first direction; and
>
> in response to detecting the detection signal crossing the first detection threshold in the first direction, readjusting a value of the reference signal based on the detection signal and *setting the first detection threshold based on the readjusted value of the reference signal* such that the detection signal again crosses the first detection threshold in a second direction opposite to the first direction.

Appeal Br. 24 (Claims App.) (emphasis added).

REJECTION

On appeal, the Examiner maintains the following rejection:

1. Claims 1–21 are rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Philipp[2] and Wilson.[3] Final Act. 3.

DISCUSSION

Appellants argue that the rejection of independent claims 1, 13, 17, and 19 should be reversed because the Examiner has not established a prima facie case of obviousness. Appeal Br. 16. In particular, the Examiner has not provided sufficient evidence to establish that the combination of Philipp and Wilson describe or suggest every limitation in each of the independent claims.

Each of the '619 Application's independent claims either requires performance of the step of "defining a first detection threshold relative to the reference signal" or requires the presence of an apparatus—i.e., a computer processor—configured to carry out a method that includes such a step. *See, e.g.*, claim 1; claim 17. In rejecting the '619 Application's independent claims, the Examiner found that Philipp describes or suggests this step. Final Act. 5 (citing Philipp col. 12, ll. 31–48). We reproduce this portion of Philipp below:

> There are many types of signal processing methods and algorithms that can be used to facilitate robust detection. For example, the amount of signal detected for each key can be 'drift compensated' by means of a relatively slow adjustment to either the detection threshold level and/or to the reference level. In a discrete analog circuit this can take the form of a slow

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[2] US 6,452,514 B1, issued September 17, 2002.

[3] US 2011/0063993 A1, published March 17, 2011.

> integrator which provides the necessary correction, tracking the current deviation of the signal from the reference level by slowly adjusting the reference itself (or the threshold level, in a similar manner).
>
> As another example, if the signal deviation is large enough to create a detection (i.e. a threshold level is crossed) and the detection persists for a long time the unit can be forced to recalibrate the reference level for the particular key that appears to be 'stuck'. The time that passes before a key is declared 'stuck' is, of course an informed choice on the part of the design engineer, and is commonly in the range of from five to thirty seconds.

As can be seen, the portion of Philipp upon which the Examiner relies describes adjustment of a detection threshold level. *Id.* at line 35.

From this disclosure, the Examiner reasons that the threshold level must be defined "*because it is used, and it is defined relative to the reference signal because a deviation from the reference crossing the threshold determines a detection state*." Final Act. 5 (emphasis in original).

At most, this portion of Philipp establishes that a detection threshold level exists. It says nothing about how that particular level is determined i.e., defined. The Examiner's finding, therefore, that Philipp describes or suggests that its detection threshold level is defined relative to the reference level is unsupported. The detection threshold level could just as easily have been set by the user or technician setting up an apparatus that performs the method described in Philipp.

Thus, we determine that the Examiner erred by finding that the portion of Philipp quoted above describes or suggests the step of "defining a first detection threshold relative to the reference signal." Accordingly, we are constrained to reverse the Examiner's rejection of independent claims 1, 13, 17, and 19 of the '619 Application. Because we have reversed the

rejection of each of the independent claims on appeal, we also reverse the rejection of each of the dependent claims on appeal.

CONCLUSION

For the reasons set forth above, we reverse the rejection of claims 1–21 of the '619 Application.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

REVERSED